



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
P.O. Box 1368 1101 Rear Southwest Blvd. Jefferson City, Missouri 65102 (314) 751-3241

April 8, 1982

Site: <u>Maline Creek</u>
ID #: <u>MOD 980631162</u>
Break: <u>2.1</u>
Other: <u>4-8-82</u>

RECEIVED

APR 12 1982

JOHN J. PISKULICH  
ENGINEER  
SPECIAL PROJECT ADVISOR

Mr. John J. Piskulich  
Special Project Advisor  
Metropolitan St. Louis Sewer District  
2000 Hampton Avenue  
St. Louis, Missouri 63139

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2.0

Dear John:

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I really appreciated seeing the work done along Maline Creek by the Metropolitan Sewer District, Tuesday, April 6, as a function of the monthly meeting of the Bi-State Stormwater Committee.

The work done in clearing debris (including car bodies, refrigerators, and shopping carts), sediment (sand, gravel, and stone of all sizes), and other obstructions (logs, brush, old rubber tires) from the channel of Maline Creek has greatly improved the carrying capacity of the stream channel and should help it pass the more frequent high flows without difficulty. We very much approve this work.

The work done in clearing trees from the banks of Maline Creek we approve (with some qualms). This should help the less frequent flood flows to pass more quickly, and reduce the amount of brush floating downstream, which then could obstruct hydraulic openings such as culverts. We approve of this.

We appreciate the fact that the stream banks have not been scalped, and that natural revegetation will occur this summer. Nevertheless, we fear that now, and again next fall and winter when annual weeds have died, bank erosion may be worse, and sedimentation of the bed increased. Until a perennial ground cover is in place, this is a real likelihood. I know there is a great cost to mulching and seeding operations, but perhaps MSD could suggest to contiguous property owners, especially St. Louis County and the several municipalities, that a perennial ground cover like vetch (crown or hairy) could help protect the earth, and help to stabilize the soil.

The rock gabian walls to protect developed property are beautiful and well-done. They also are expensive. I wonder if their costs are borne by the abutting property owners, whose homes have been saved and whose back yards have been restored. Please let us know about this point.

Christopher S. Bond Governor  
Fred A. Lafser Director

Division of Environmental Quality  
Robert J. Schreiber Jr., P.E. Director

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We are very pleased that MSD cleaned all culverts, regardless of ownership. Have you "eyeballed" the hydraulic openings, and noted which ones are obviously too small for the present flows of Maline Creek, and made a list for the owners so that the bridges or culverts may be replaced in the future with new ones of adequate carrying capacity? I would very much appreciate knowing this, also.

Presuming this is a one-time-only effort on the part of MSD to restore the carrying capacity of Maline Creek, what effort is being made to assure that conditions will not rapidly return to the former character of the channel? I know that Mayor Berger of Bellefontaine Neighbors has instituted trash pick-ups, but there is more to the problem, as you know. First is the problem of fragmented authority. MSD is the only entity which transcends the boundaries of the many municipalities and the county in the Maline Creek Basin. Your encouragement of improved local enforcement of anti-dumping ordinances, your encouragement of streambank jogging paths, your encouragement of flood plain management measures (such as avoiding development of flood prone areas) within your jurisdiction can help greatly. Is the MSD doing this?

Second is the problem of stormwater runoff from developed areas: Rooftops, streets, parking lots, sidewalks, driveways, jogging paths. We encourage the adoption of stormwater runoff control ordinances providing for detention, porous paving, groundwater recharge, drywells, etc., as opposed to shunting all stormwater as quickly as possible into the nearest watercourse. I estimate that Maline Creek's size has trebled during this century, due to the increased flows it must carry due to stormwater runoff. Flooding problems cannot be erased by the proposed Corps of Engineers project, and a combination of measures must be adopted. What is MSD doing on this front?

Third is the problem of sedimentation of the stream bed. As you know, any creek will carry sediment, and you know the variables of temperature, velocity, and volume of flows. But what we are concerned about is the extra sediment load that results in aggradation of sediments in the bed, reducing carrying capacity. We feel each government entity should enact an erosion/sedimentation control ordinance, especially for new construction sites, so that the kind of work done on Maline Creek in 1981-82 will not have to be done again. What is MSD doing on this front?

We are fortunate to have an organization like MSD which can unify the many small municipalities in the metropolitan St. Louis area, can perform such a project as the Maline Creek channel and bank cleaning, and can encourage a reduction in stormwater runoff, erosion, sedimentation, dumping, and construction in flood hazard reaches.

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We would be pleased to support MSD in educational endeavors before planning commissions or city councils, to encourage local ordinances which would enhance the maintenance of carrying capacities of streams, and the mitigation of flood hazards. We have model ordinances.

We recognize that in many locations in urbanizing areas it is not possible to maintain a completely natural watercourse, but we always are disappointed when unlimited development near rivers, or creeks, has made it necessary to transform a stream into a concrete storm sewer. Besides the aesthetics, the natural outflow of groundwater is frustrated, as well. Accordingly, we wish to put as much effort into the preventive aspects of flood plain management/stormwater management as possible.

We are glad to be made aware of the great effort you have undertaken along Maline Creek, and we look forward to seeing your slides at the May 4 meeting of the Bi-State Stormwater Committee in St. Louis.

Sincerely yours,



Richard M. Gaffney, AICP  
Flood Plain Management Section Chief  
Soil and Water Conservation Program

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